

November 9, 2020

Town of Parker  
Stacey Nerger, Associate Planner  
20120 E Main St.  
Parker, CO 80138

RE: Parker & Pine Filing No. 1 Lot 2 – Site Plan – SP20-019

Dear Stacey,

Please find below our comment responses addressing the first submittal for the Site Plan comments for the proposed Murphy Oil. This letter is to address comments we received from you on May 6, 2020. To facilitate your review, we have included the original conditions in *italicized* font and have provided our responses in **bold blue**.

### **Fire/Life Safety – Randall L. Capra:**

- 1. The applicant shall be aware that no vertical construction on this site will be allowed until such time that curb gutter and first lift of asphalt are installed; a site inspection will be required to ensure that this requirement is made prior to allowing vertical construction to commence.*  
*Satisfied; applicant has acknowledged that they will comply with second submittal.*  
**Response: Acknowledged. Please let us know if there's anything else you need from us.**
- 2. Per the requirements of [18 IFC Section 503.1.1 Buildings and Facilities] approved fire apparatus access roads shall be provided for every facility, building, portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility (the building is a 155+ feet long and 50.56 feet wide and cannot meet the requirement as measured from the center line of the fire apparatus as measured by an approved route from any point that a fire engine might park when responding to a call at this building). This submittal does not provide for this requirement of the code. Per the requirements of the code, the fire code official is allowed to increase the dimension of the 150 feet provided that the applicant meets Exception 1.1 of this section... "The building is equipped throughout with an approved automatic sprinkler suppression system installed in accordance with section 903.1.1, 903.1.2, or 903.3.1.3. The applicant has indicated that they are unsure whether this comment is applicable; the comment is very much applicable. The private drives will not be utilized (except for a catastrophic response and Parker Road will never be used for emergency response. This would then indicate that the applicant is required to provide access internally. The applicant was given this information so as to they can meet this requirement, fully. To further help the applicant understand this question, working off of internal roads can create access issues with regard to getting additional apparatus onto the site as well as getting civilians off the site... as well as redeploying apparatus as they come in service. For the applicant's clarity, I have provided a marked up site plan to address the crucial elements of this site; access, as shown, must be provided at all times.*  
**Response: Thank you for the exhibits. To provide fire apparatus access roads internal to the Murphy lot, we have added "NO PARKING – FIRE LANE" signage as necessary and have provided confirmation that the pavement design can withstand the imposed apparatus loads. Additionally, a turning analysis showing the apparatus movements, internal to the site, has been included (see end of this letter). For clarification, the dimensions of the c-store building are ~51' x ~69' and the dimensions of the fueling canopy are ~47' x ~100'.**



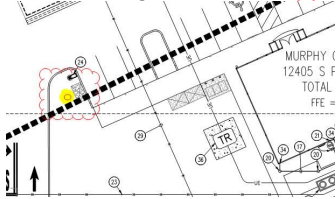
3. The applicant shall provide an auto turn analysis indicating that apparatus can navigate all portions of this site (both sides of the gas canopy); NO PARKING – FIRE LANE signage is required for any portion of the access where the 20-foot clear width requirement cannot be met. This is applicable for the loop around the canopy as well as for each entry. The access on each side of the canopy shall meet his requirement with no portion of the canopy encroaching into the required fire lane access road. *Partially satisfied; applicant has addressed with current submittal. Note – the applicant has provided a Fire Life Safety signature block on the sheet C-1.2 (Fire Mobility Plan); the applicant shall be aware that Fire Life Safety will only sign the signature block on the two sheets specified for the utility drawings. This signature block should be removed.*

**Response:** The signature block has been removed from the Fire Mobility Plan. A fire access mobility plan showing the fire apparatus turning analysis has been included at the end of this letter. “NO PARKING – FIRE LANE” signs have been added to the areas where parked vehicles could potentially encroach into the required 20-foot clear width.

4. The Town of Parker requires that fire apparatus access roads meet the clear-width and weight-bearing standards of the jurisdiction in which the project is located. Roadways shall be designed to support the imposed weight of fire apparatus, 30 two axle and 40 ton three axle vehicles. An unimpeded clear width of 20 feet shall be maintained at all times. As such, any location where parked vehicles would obstruct this clear width requirement will require “NO PARKING – FIRE LANE” signage. This signage shall be red on white. Update design criteria has been provided at the end of this document; ensure compliance when resubmitting. *Not satisfied; applicant has indicated that “the area has been designed to withstand heavy vehicular traffic (fueling trucks)” without really answering the requirement. A 30-ton vehicle is “heavy” but does not meet the requirement noted. It is immaterial whether “fueling trucks” will be using the site. The applicant shall document that access will be designed to meet the imposed weights noted above when resubmitting.*

**Response:** The drive aisle to the west of the canopy and in between the canopy and the c-store have an unimpeded clear width of over 20 feet. On the opposite side of the drive aisle from the canopy on the east and north sides, “NO PARKING – FIRE LANE” signage has been added to maintain the 20 feet. The pavement specifications have been designed to withstand the imposed weight of the fire apparatus, 30 two axle and 40 ton three axle vehicles, please reference the email from the geotechnical consultant at the end of this letter.

5. The applicant shall provide a fire hydrant in the island shown below; address this issue when resubmitting. *Satisfied; applicant has addressed with current submittal.*



6. **Response: Acknowledged. Please let us know if there is anything else you need.**

7. The applicant has not included the required fire life safety signature block for Fire Life Safety on either a cover page or the overall utility page. This issue must be addressed when resubmitting. *Satisfied; applicant has addressed with current submittal. The applicant has added the signature blocks as required.*

**Response: Acknowledged. Please let us know if there is anything else you need.**

#### GENERAL COMMENTS (as applicable)

Parker & Pine  
SP20-19  
November 9, 2020

*All engineering documents submitted to the Town of Parker shall bear the wet signature and seal of the engineer or architect in responsible charge of the design.*

**Response: Acknowledged.**

*Water distribution and site access components shall be installed and in service prior to the construction of any portion of the structure, except by special permit issued by the Fire District.*

**Response: Acknowledged.**

**Underground fire lines**

*When thrust blocks are used as part of the pipe restraint system, submitted plans for permit shall provide detailed documentation that the thrust blocks satisfy all requirements of 13 NFPA 24: 10.8.2, including specific thrust block dimensions and mathematical calculations for block dimensions per guidelines provided in Annex A.10.8.2.*

**Response: The PWSD kickblock detail has been added to the plans. Thrust block calculations have been included with this submittal.**

**VEHICLE SPECIFICATIONS** are provided for the largest apparatus in use by South Metro Fire Rescue. Fire Apparatus Access Roads shall be capable of accommodating this apparatus.

**Response: These specifications have been used for the fire mobility plan.**

**Where objects are present adjacent to the fire apparatus access road, particularly on turns and turn arounds which require backing, a reasonable safety margin shall be provided to prevent potential damage to the property and to the fire apparatus.**

**Response: Understood, please reference the fire mobility plan for details.**

*PRIVATE ROADS that provide access to more than two dwellings or one or more commercial buildings shall be constructed to meet the roadway standards approved by the South Metro Fire Rescue Authority for fire apparatus access. Private roads that do not meet the roadway standard may be accepted provided that alternative methods and materials are incorporated into the subdivision that addresses the fire and life safety of the citizens.*

**Response: Parking area and drive aisles have been designed to withstand heavy vehicular loads (fueling truck).**

Sincerely,  
**GALLOWAY**

Jeff Weeder  
Site Development Project Manager  
(303) 770-8884  
[JeffWeeder@gallowayus.com](mailto:JeffWeeder@gallowayus.com)

Jim Erwin Svoboda

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From: Mehdi Moazzami <mmoazzami@unitedconsulting.com>  
Sent: Thursday, November 5, 2020 10:45 AM  
To: Jim Erwin Svoboda  
Cc: Chris Roberds  
Subject: RE: Murphy - Parker, CO (Parker/Pine) - Pavement Design

Hi Jim

As requested, we have evaluated Murphy's standard concrete pavement consisting of 5 inches of 4,000 psi, welded wire reinforced concrete with respect to supporting a 30-ton two-axle and a 40-ton three-axle fire truck. The results of our analysis confirm that the standard 5-inch concrete pavement section as designed will adequately support a 30-ton two-axle and a 40-ton three-axle fire truck.

Please let us know if you need additional information.

**Mehdi Moazzami, Ph.D., P.E.**

Executive Vice President

**United Consulting**

**Phone:** 678.618.2990

**Email:** [mmoazzami@unitedconsulting.com](mailto:mmoazzami@unitedconsulting.com)

625 Holcomb Bridge Road; Norcross, GA 30071

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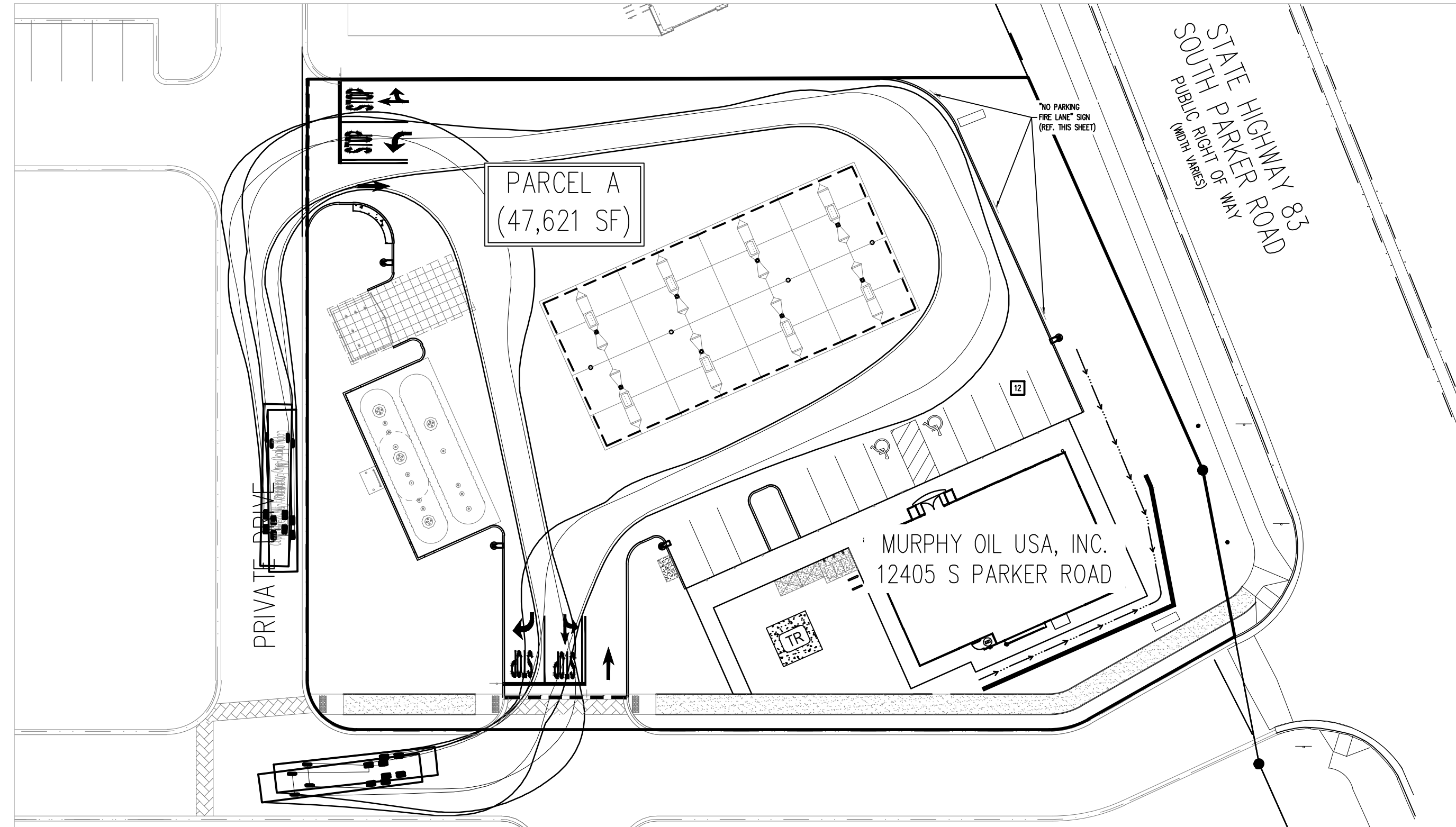
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CONSULTING



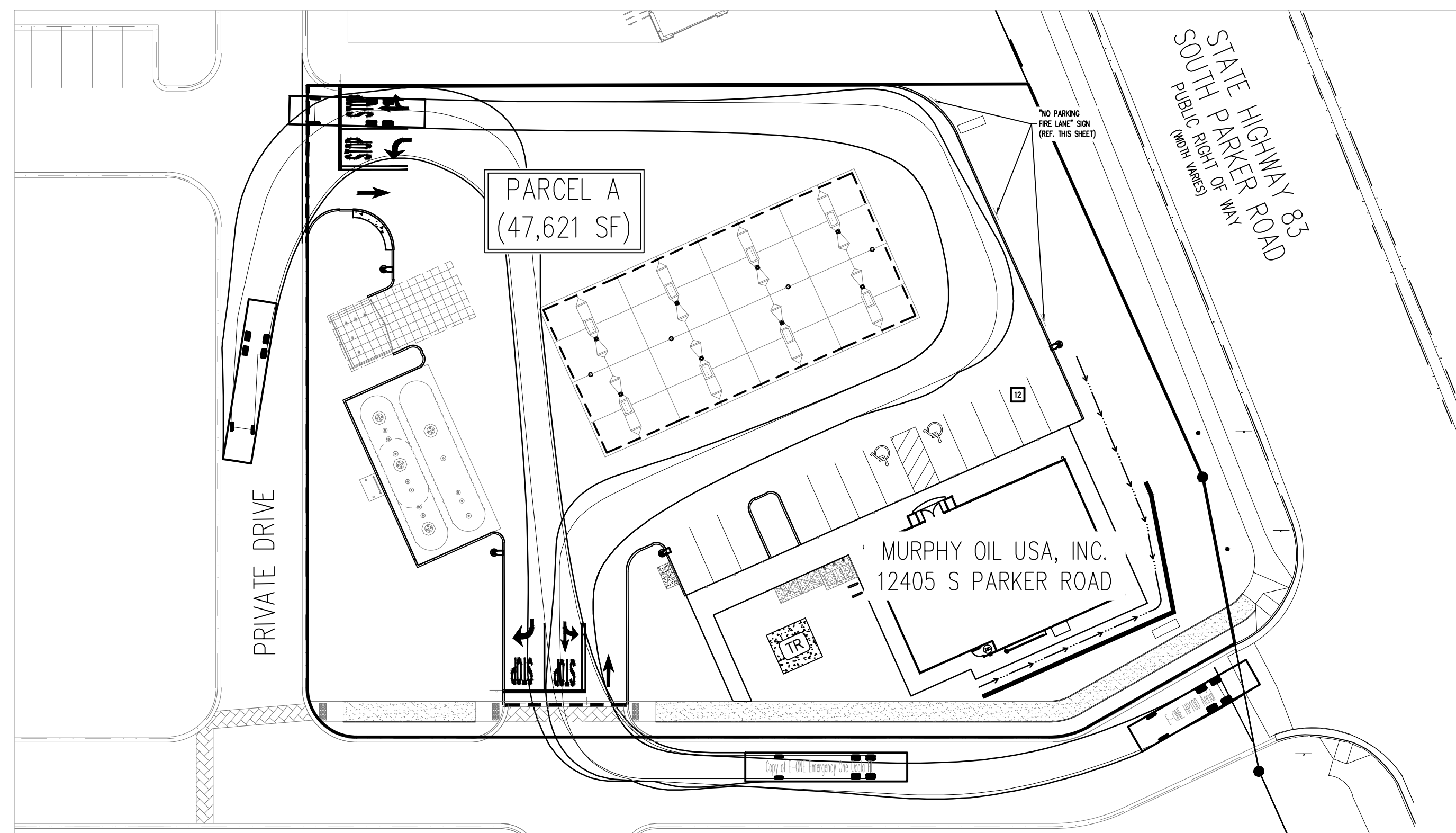
# PARKER AND PINE FILING NO. 1 LOT 2 – SITE PLAN

MURPHY OIL USA, INC.  
 A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
 TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO

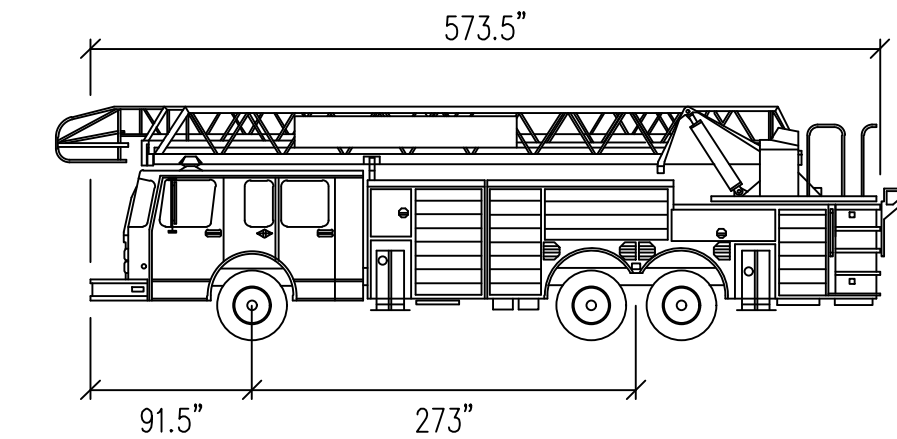
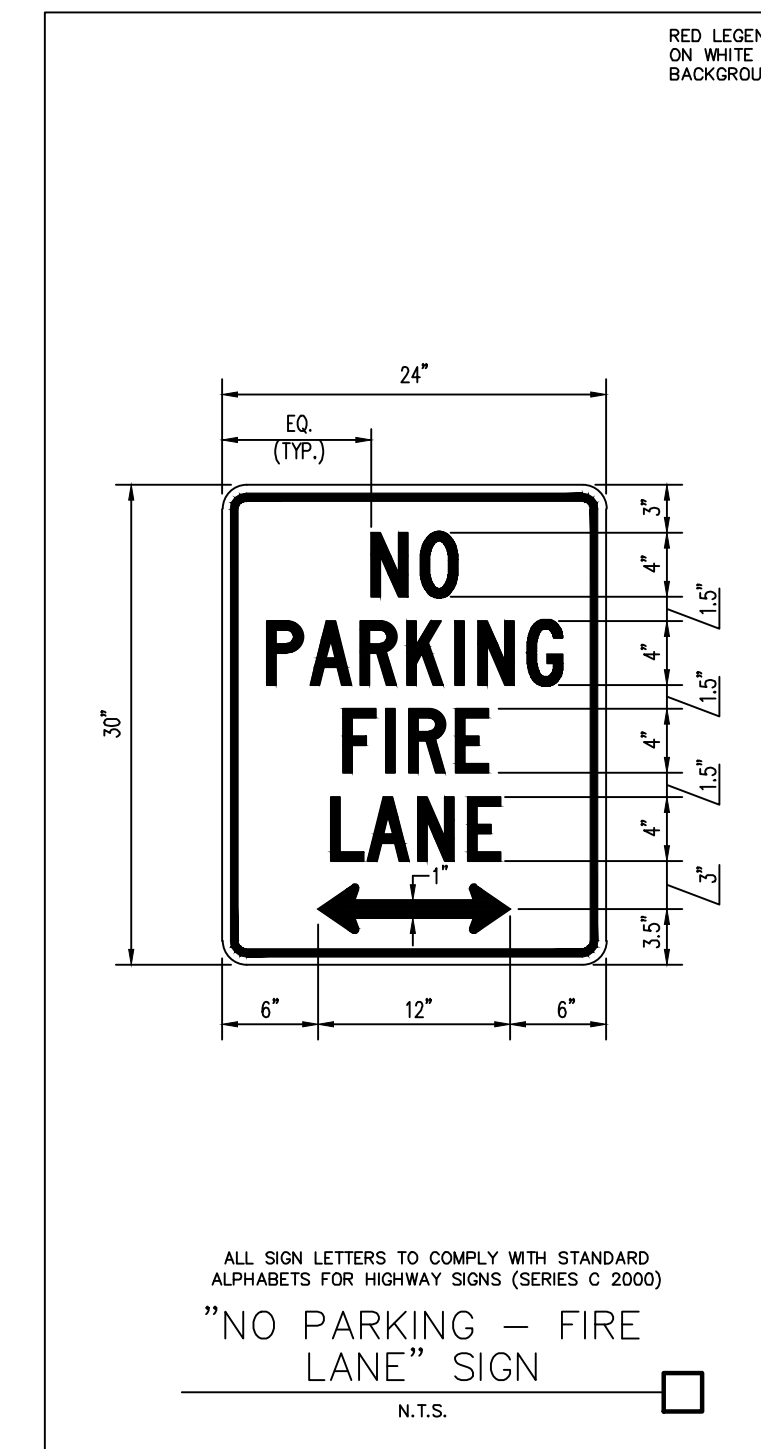
## SITE PLAN



TRUCK ROUTE – ENTER THROUGH NORTHERN ACCESS, EXIT THROUGH SOUTHERN ACCESS  
 SCALE: 1" = 30'



TRUCK ROUTE – ENTER THROUGH SOUTHERN ACCESS, EXIT THROUGH NORTHERN ACCESS  
 SCALE: 1" = 30'



TOP FIRE TRUCK	FEET
Width (Mirror to Mirror)	: 10.08
Axle Track	: 6.92
Inside Turn Radius	: 26.08
Inside Cramp Angle	: 40°

TOWN OF PARKER FIRE TRUCK  
 NOT TO SCALE

### BENCHMARK

ELEVATIONS SHOWN ARE BASED ON CONTROL PROVIDED BY MARTIN & MARTIN. VERTICAL DATUM IS APPROXIMATELY 2.6± FEET BELOW NAVD 88.

### SITE BENCHMARKS:

- SITE BENCHMARK #1: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062"; EL = 5634.76
- SITE BENCHMARK #2: #5 REBAR WITH 2" ALUMINUM; CAP STAMPED "PLS 36062"; EL = 5640.22

### BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

### CAUTION – NOTICE TO CONTRACTOR

- ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.



THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_

SHEET NO. C-1.2

FIRE MOBILITY PLAN  
 MURPHY EXPRESS  
 12405 SOUTH PARKER ROAD  
 PARKER COLORADO

**Galloway**  
 6162 S. Willow Drive, Suite 320  
 Aurora, CO 80011  
 303.770.9864  
 GallowayUS.com

**MURPHY OIL USA, INC.**  
 200 PEACH STREET  
 EL DORADO, AR 71730

**MURPHY USA**